

Technical workshop: Tuesday 12 April 2016: Nursery and Growing media

Moderator: Martin Koller, Reporter: Francis Rayns

Herman Limbers (Klassmann-Deilmann Service GmbH DE). Growing media are needed for pot herbs and for vegetable seedlings in trays and in 'pressed pots'. The organic regulations vary by country, especially with regard to the need for reduced peat products, fertiliser based animal products and levels of acceptable chemical residues. Peat is still the base for growing media worldwide and about half of extracted peat is currently used for growing media. Alternatives include wood fibre (made under conditions of high temperature and pressure from wood chips), coir fibre (high in un-buffered K), expanded clay, volcanic stone, perlite, bark and compost. Compost must be stable (generally 4-6 months old) and a number of certification schemes (e.g. RHP and RAL) will ensure its quality using routine chemical tests and bioassays (e.g. growing cress in a sealed jar is particularly useful). Organic fertilisers include horn shavings, granulated blood and bone, potato protein and plant based sources of N P and K. Organic fertilisers (especially horn shavings) can cause problems with fungus gnats. Less fertilisers are now included in growing media than in the past, because growers use more top dressing fertilisers.

QUESTIONS AND DISCUSSION: Will organic compost become toxic in storage ?(fully blended organic growing media should only be stored for two weeks). Can low pH compost be produced ? (generally the pH will not fall below 7.5 but with wood fibre it can be reduced to 5.5). Could hemp be used as a substrate ?(this has been tested but it immobilises too much nitrogen).

Jose Antonio Pascual (Cebas-csic, ES). Peat is the ideal growing medium (80% of growing media in Europe is peat based) but there are a range of environmental concerns with its use. Compost (made from vegetable waste) could be an alternative. Perhaps, a new word instead of 'Compost' has to be found for such tailor-made compounds for growing media

Disease prevention is very important in organic greenhouses. Some compost is disease suppressive, but the suppression has been shown to differ in a range of composts. Compost can be inoculated with microorganisms to give better disease control but only certain species can be used according to the regulations – it is much easier to register 'biostimulants'.

QUESTIONS AND DISCUSSION: Is 100% compost really possible in growing media? (yes, with specific qualities and suitable fertilisers). Would different transplants each need a different compost? (possibly, each with specific materials and inoculants. Further information: website of the ALMOST project). Can 100% compost be used in pressed blocks? (at present it is only suitable for use in trays).